



Press Release ... for immediate release.

October 2010

Carbon Free World Energy Supply Leadership Provided by American Scientists

Fusion Power Corporation, of Scotts Valley, California, presented plans for a program that sets the stage to design the first HEAVY ION FUSION (HIF) ENERGY PRODUCTION FACILITY.

FPC's president, Dr. Charles Helsley, closed the 18th HIF International Symposium in Darmstadt, Germany with a presentation on the application of Heavy Ion Fusion to produce electricity at a very reasonable cost per kilowatt hour. A plan for a Fusion Power plant, a 'StarPower Energy Complex', producing electricity without the production of carbon dioxide and with no nuclear fission waste by-products. Dr. Helsley gave an impressive performance to close the conference. Many people, who had said, and some repeatedly, that they would be leaving the conference before the last presentation, were quite physically present. It was not your normal last talk of the conference syndrome. The lecture hall was as full as it had been all week. Many even stopped their computer interaction and focused on the presentation topic of practical HIF application to generate power.

Departing from other fusion systems, the FPC - HIF design avoids the known problems and shortcomings of magnetic confinement fusion and laser-driven fusion (NIF). Instead, the FPC design is based upon the heavy-ion-accelerator driver, the internationally favored ICF driver approach, to supply the instantaneous source of high amounts of energy to initiate the fusion reaction to produce enormous amounts of heat. HIF can have energy production ratios equivalent to or better than old oil at 100:1.

“Power production from nuclear fusion can be realized in the near term using technologies in widespread use today,” said Chief Technology Officer, Dr. Robert Burke. He went on to say, “The ability of high-energy particle accelerator systems to ignite fusion burn in commercial settings has been known internationally since the mid-1970s. Accelerators routinely focus energetic beams to sub-millimeter spots, a size matching the requirement of fusion targets. Moreover, standard features of accelerators include rapid pulsing, efficient conversion of wall-plug electricity to beam energy, reliable 24/7 operation, and lifetimes as long as their users want. It now is time to apply this technology, and the lessons learned from the National Ignition Facility, and start producing fusion energy for commercial purposes.” Dr. Burke’s technical paper described his “*Single Pass HIF Energy System*” patent pending process with the telescoping and snugging of the ions to a tight focus on the fusion pellet. After his presentation, many participants at the Symposium commented, “Now, I understand why you are so excited about this.”

Fusion was first demonstrated in 1952. Research on inertial confinement fusion (ICF), began at the Livermore National Laboratory in 1962, the HIF process was jointly proved possible at the Argonne and Brookhaven National Laboratories, and Hughes Industries Lab in 1975-78 and was also confirmed in Germany in the 1990’s. Dr. Burke led Argonne’s HIF team from 1976 to 1980.

Drs. Burke and Helsley's presentations drew the excitement of the participants at the 18th International Symposium on Heavy Ion Inertial Fusion (HIF 2010) in Darmstadt, Germany August 30 – September 3, 2010. Their presentations provided a renewed impetus for the international HIF community to refocus their efforts on HIF's ability to meet the need of commercial energy production.

"We have completed the scientific study and are now in the process of engineering the design for the first facility to produce 20 to 35 GWe. This is an exciting step forward to meet the energy needs of the US and the world without carbon emissions or a significant radioactive waste problem. Accelerator developments over the past three decades, producing CERN's Large Hadron Collider (LHC), Brookhaven National Laboratory's Relativistic Heavy Ion Collider (RHIC), and Germany's Helmholtz GSI heavy ion accelerator complex, have made the HIF job substantially more straightforward" said Dr. Helsley. He continued to say, "... the support of the HIF community is necessary to keep the practical application of HIF moving forward."

HIF is the ultimate of clean energy producers. The power chambers are protected from fusion's intense neutron emission by thick walls of flowing liquid metal. Intercepting the neutrons in liquid walls internal to the chamber, frees the FPC-HIF design from the need to find materials able to withstand the neutron bombardment a need that makes commercialization of magnetically confined fusion problematic. The liquid walls also minimize the generation of radioactive waste to a level consistent with the great promise of fusion energy.

FPC plans to bring HIF on line within ten years.

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Fusion Power Corporation (FPC), a California corporation located in Scotts Valley was formed in early 2009 to pursue the opportunity to commercialize HIF technology in the US and internationally. FPC has the exclusive worldwide right to license the patent-pending Single Pass HIF intellectual property with the goal of: 1) completing the detail design for the development of the Single Pass HIF" Energy System within two to three years; 2) having the first US commercial Energy Complex operating by 2020; and 3) driving worldwide adoption of this Energy solution thereafter.

FPC is seeking investors in the initial engineering design.

For more information:

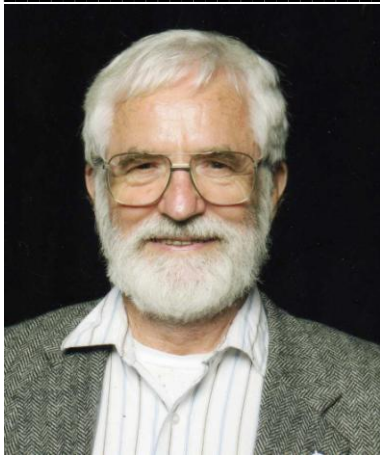
H Helsley, 818 591-9363 or

<mailto:contact@fusionpowercorporation.com?subject=Fusion Power Information Request>

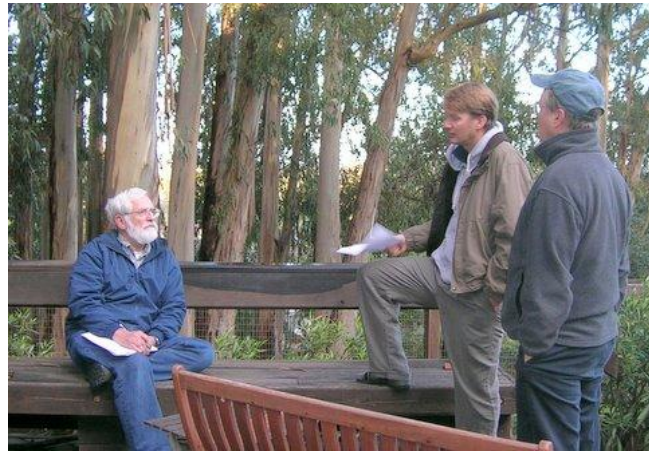
Background info available at: <http://www.fusionpowercorporation.com>



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Dr. Charles E. Helsley

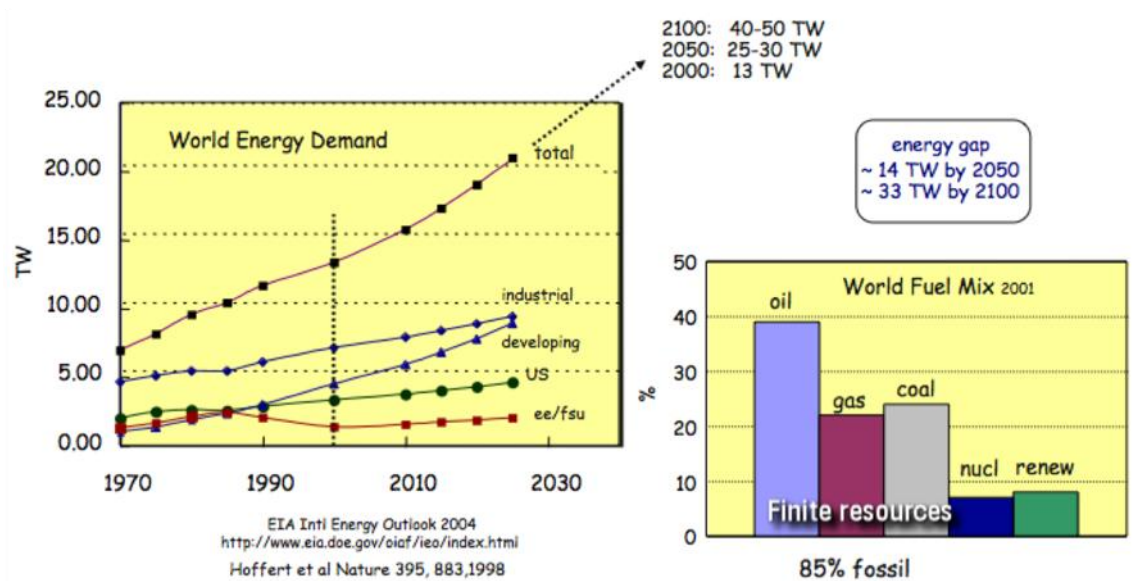


Dr. Charles Helsley, Dr. Alex Burke, and Dr. Robert Burke

“The nation that harnesses the power of clean, renewable energy will be the nation that leads the 21st century.”

- *President Obama, June, 2010*

World Energy Demand



A Mind Boggling thought ... do the math ...

14 TW, the projected additional energy needed by 2050 is about --

.... **10,000** new 1.4GW nuclear fission plants or

.... **18,667** new 750MW coal or gas fired plants or

.... **400** 35GW HIF StarPower Complexes

Every year the need is

300 new 1.4GW fission power plants, or

556 new 750 MW coal or gas powered plants, or

12 new 35 GW StarPower fusion complexes)

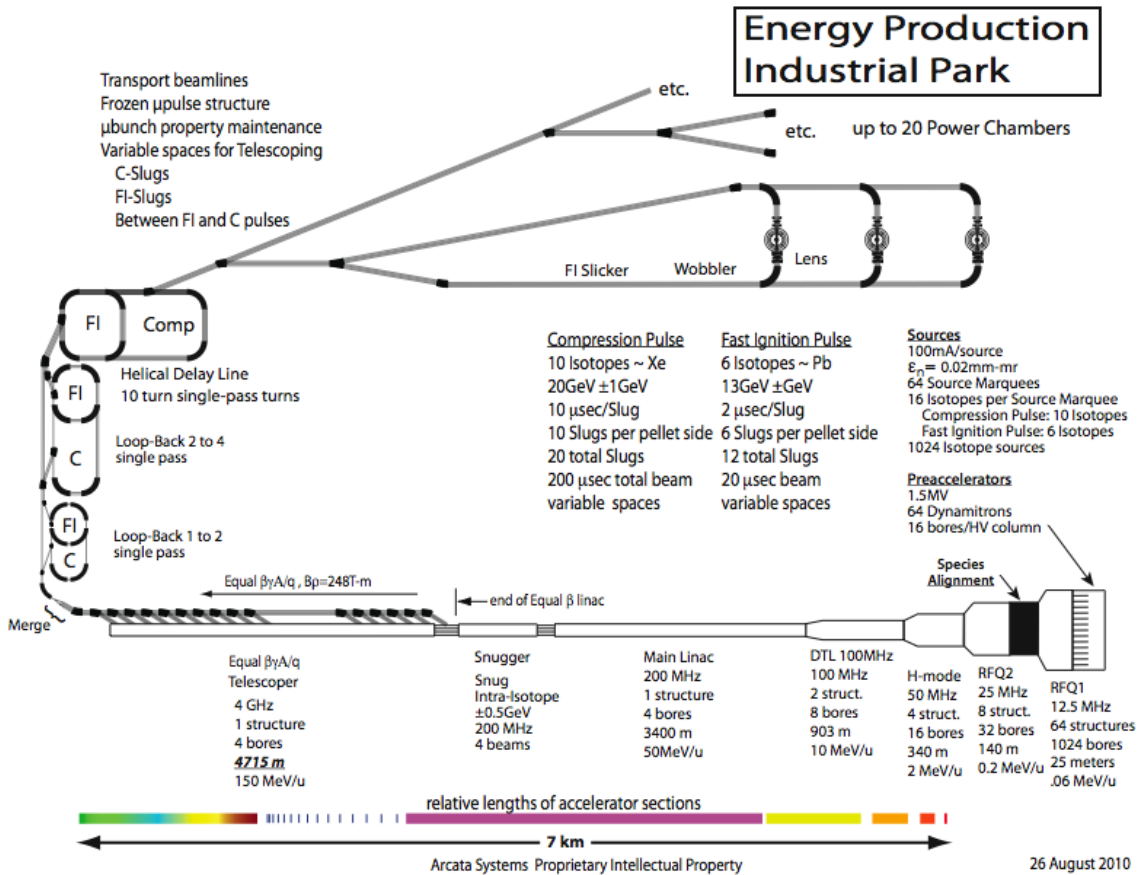
(5 TW projected need added about every 12 years is equivalent to --

3,571 new 1.4 GW fission plants or

6,667 new 750 MW coal or natural gas fired plants, or

143 - 35GW StarPower Energy Complexes)

Plus nearly all the current facilities will need to be replaced by 2050 according to Duke Energy CEO, Jim Rogers.



Uses of Fusion Energy

